

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended) A composition comprising:
 - (a) ~~a first therapeutic agent, wherein said first therapeutic agent is an antibody or an epitope-binding fragment thereof, and wherein said antibody or said fragment specifically binds to insulin-like growth factor-I receptor, selected from the group consisting of: and wherein said antibody has the same binding specificity as murine antibody EM164, and;~~
 - (i) ~~an antibody, or epitope binding fragment thereof, having the same amino acid sequence as the murine antibody EM164 produced by mouse hybridoma EM164 (ATCC accession number PTA-4457~~
 - (ii) ~~a resurfaced antibody, or epitope binding fragment thereof, having the same binding specificity as murine antibody EM164,~~
 - (iii) ~~a human or humanized antibody, or epitope binding fragment thereof, having the same binding specificity as murine antibody EM164,~~
 - (iv) ~~a functional equivalent of an antibody, or epitope binding fragment thereof, having the same binding specificity as murine antibody EM164, and~~
 - (v) ~~a variant of murine antibody EM164, or epitope binding fragment thereof, having at least one nucleotide mutation, deletion or insertion compared to murine antibody EM164, and having the same binding specificity as murine antibody EM164, and~~

- (vi) ~~the murine antibody EM164 produced by mouse hybridoma EM164 (ATCC accession number PTA-4457), or epitope-binding fragment thereof, and~~
(b) a ~~second~~ therapeutic agent.

2. (currently amended) The composition ~~according to~~ of claim 1, wherein said ~~second~~ therapeutic agent is selected from the group consisting of docetaxel, paclitaxel, doxorubicin, epirubicin, cyclophosphamide, trastuzumab (~~Hereceptin~~), capecitabine, tamoxifen, toremifene, letrozole, anastrozole, fulvestrant, exemestane, goserelin, oxaliplatin, carboplatin, cisplatin, dexamethasone, antide, bevacizumab (~~Avastin~~), 5-fluorouracil, leucovorin, levamisole, irinotecan, etoposide, topotecan, gemcitabine, vinorelbine, estramustine, mitoxantrone, abarelix, zoledronate, streptozocin, rituximab (~~Rituxan~~), idarubicin, busulfan, chlorambucil, fludarabine, imatinib, cytarabine, ibritumomab (~~Zevalin~~), tositumomab (~~Bexxar~~), interferon alpha-2b, melphalam, bortezomib (~~Velcade~~), altretamine, asparaginase, gefitinib (~~Iressa~~), erlonitib (~~Tareeva~~), anti-EGF receptor antibody (~~Cetuximab, Abx-EGF~~), thalidomide, carmustine, prednisone, interferon alpha-2a, vincristine, pamidronate, erythropoietin, bisphosphonate and an epothilone.

3. (currently amended) The composition ~~according to~~ of claim 1, wherein said ~~second~~ therapeutic agent is selected from the group consisting of carboplatin, oxaliplatin, cisplatin, paclitaxel, docetaxel, gemcitabine, and camptothecin.

4. - 5. (canceled).

6. (currently amended) A pharmaceutical composition comprising the composition ~~according to~~ of claim 1, and a pharmaceutically acceptable carrier or diluent.

7. (currently amended) ~~A composition comprising~~ The composition of claim 1,
wherein said antibody or said fragment comprises

(a) — a first therapeutic agent, wherein ~~said first therapeutic agent is an antibody or an epitope-binding antibody fragment comprising a heavy chain variable region and a light chain variable region, wherein said heavy chain variable region comprises three sequential~~ at least one complementarity-determining regions comprising the region having an amino acid sequences of SEQ ID NOS:1-3 ~~sequence selected from the group consisting of, respectively:~~

SYWMH ————— (SEQ ID NO:1),
EINPSNGRTNYNEKFKR — (SEQ ID NO:2),
GRPDYYGSSKWYFDV — (SEQ ID NO:3),
RSSQSIVHSNVNTYLE — (SEQ ID NO:4),
KVSNRFS ————— (SEQ ID NO:5), and
FQGSHVPPT ————— (SEQ ID NO:6), and

(b) — a second therapeutic agent, wherein ~~when SEQ ID NO:5 is selected said antibody or antibody fragment specifically binds to insulin-like growth factor I receptor.~~

8. (currently amended) ~~A composition comprising:~~

(a) — a first therapeutic agent, wherein ~~said first therapeutic agent is an antibody or an epitope-binding antibody fragment~~ The composition of claim 1,
wherein said antibody or said fragment comprises ~~comprising~~ at least one heavy chain variable region and at least one light chain variable region, wherein said heavy chain variable region comprises three sequential complementarity-determining regions comprising the ~~having~~ amino acid sequences of ~~represented by~~ SEQ ID NOS:1-3, respectively;

SYWMH ————— (SEQ ID NO:1),
EINPSNGRTNYNEKFKR — (SEQ ID NO:2),

~~GRPDYYGSSKWFYFDV~~ (SEQ ID NO:3);

and wherein said light chain variable region comprises three sequential complementarity-determining regions comprising the ~~having~~ amino acid sequences of ~~represented by~~ SEQ ID NOS:4-6, respectively:

~~RSSQSIVHSNVNTYLE~~ (SEQ ID NO:4);

~~KVSNRFS~~ (SEQ ID NO:5);

~~FQGSHPPT~~ (SEQ ID NO:6); and

~~(b)~~ a second therapeutic agent.

9. (currently amended) ~~A~~ The composition of claim 1 comprising:

~~(a)~~ a first therapeutic agent, wherein said first therapeutic agent is an antibody or an epitope binding fragment thereof, wherein said antibody or said fragment comprises a heavy chain variable region that has at least 90% sequence identity to ~~the~~ an amino acid sequence of ~~represented by~~ SEQ ID NO:7:

~~QVQLQQSGAELVKPGASVKLSCKASGYTFTSYWMHWVKQ~~

~~RPGQGLEWIGEINPSNGRTNYNEKFKRKATLTVDKSSSTAYMQLS~~

~~SLTSEDSAVYYFARGRPDYYGSSKWFYFDVWGAGTTVTVSS~~ (SEQ ID NO:7); and

~~(b)~~ a second therapeutic agent.

10. (currently amended) The composition of claim 9, wherein said heavy chain variable region has at least 95% sequence identity to said amino acid sequence represented by ~~of~~ SEQ ID NO:7.

11. (currently amended) The composition of claim 9, wherein said heavy chain variable region comprises the amino acid sequence of ~~has an amino acid sequence that is represented by~~ SEQ ID NO:7.

12. (currently amended) ~~A-The composition of claim 1 comprising:~~

(a) ~~— a first therapeutic agent, wherein said first therapeutic agent is an antibody or an epitope-binding fragment thereof wherein said antibody or said fragment comprises a light chain variable region that has at least 90% sequence identity to the an amino acid sequence ~~represented by of~~ SEQ ID NO:8:~~

DVLMTQTPLSLPVS LGDQASISCRSSQSIVHSNVNTYLEWYLQKPG
QSPKLLIYKVS NRFSGVPDRFSGSGSGTDFTLRISRVEAEDLGIYYC
FQGSHVPPTFGGGTKLEIKR (SEQ ID NO:8), and

(b) ~~— a second therapeutic agent.~~

13. (currently amended) The composition of claim 12, wherein said light chain variable region has at least 95% sequence identity to said amino acid sequence ~~represented by of~~ SEQ ID NO:8.

14. (currently amended) The composition of claim 12, wherein said light chain variable region comprises the amino acid sequence of ~~has an amino acid sequence that is represented by~~ SEQ ID NO:8.

15. (currently amended) ~~A-The composition of claim 1 comprising:~~

(a) ~~— a first therapeutic agent, wherein said first therapeutic agent is an antibody or an epitope-binding fragment thereof wherein said antibody or said fragment comprises a light chain variable region comprising an amino acid having a sequence selected from the group consisting of:~~

DVVM TQTPLSLPVS LGDPASISCRSSQSIVHSNVNTYLEWYLQKPG
QSPRL LIYKVS NRFSGVPDRFSGSGAGTDFTLRISRVEAEDLGIYYC
FQGSHVPPTFGGGTKLEIKR SEQ ID NO:9;

DVLMTQTPLSLPVS LGDPASISCRSSQSIVHSNVNTYLEWYLQKPG
QSPKLLIYKVS NRFSGV PDRFSGSGAGTDFTLRISRVEAEDLGIYYC
FQGSHVPPTFGGGTKLEIKR SEQ ID NO:10;

DVLMTQTPLSLPVS LGDPASISCRSSQSIVHSNVNTYLEWYLQKPG
QSPRLLIYKVS NRFSGV PDRFSGSGAGTDFTLRISRVEAEDLGIYYC
FQGSHVPPTFGGGTKLEIKR SEQ ID NO:11; and

DVVM TQTPLSLPVS LGDPASISCRSSQSIVHSNVNTYLEWYLQKPG
QSPKLLIYKVS NRFSGV PDRFSGSGAGTDFTLRISRVEAEDLGIYYC
FQGSHVPPTFGGGTKLEIKR SEQ ID NO:12; and

(b) — a second therapeutic agent.

16. (currently amended) ~~A~~The composition of claim 1 ~~comprising:~~

(a) — a first therapeutic agent, wherein said first therapeutic agent is an antibody or an epitope-binding fragment thereof wherein said antibody or said fragment comprises a heavy chain variable region comprising the amino acid sequence of having a sequence represented by SEQ ID NO:13:

QVQLVQSGAEVVKPGASVKLSCKASGYTFTSYWMHWVKQRPGQ
GLEWIGEINPSNGRTNYNQKFQ GKATLTVDKSSSTAYMQLSSLTSE
DSAVYYFARGRPDYYGSSK WYFDVWGQGTTVTVSS (SEQ ID
NO:13); and

(b) — a second therapeutic agent.

17. (currently amended) The composition of any one of claims 7-16, wherein said ~~second~~ therapeutic agent is selected from the group consisting of docetaxel, paclitaxel, doxorubicin, epirubicin, cyclophosphamide, trastuzumab (~~Herceptin~~), capecitabine, tamoxifen, toremifene, letrozole, anastrozole, fulvestrant, exemestane, goserelin, oxaliplatin, carboplatin, cisplatin, dexamethasone, antide, bevacizumab (~~Avastin~~), 5-fluorouracil, leucovorin, levamisole, irinotecan, etoposide, topotecan, gemcitabine, vinorelbine, estramustine, mitoxantrone, abarelix,

zoledronate, streptozocin, rituximab (~~Rituxan~~), idarubicin, busulfan, chlorambucil, fludarabine, imatinib, cytarabine, ibritumomab (~~Zevalin~~), tositumomab (~~Bexxar~~), interferon alpha-2b, melphalam, bortezomib (~~Veleade~~), altretamine, asparaginase, gefitinib (~~Iressa~~), erlonitib (~~Tareeva~~), anti-EGF receptor antibody (~~Cetuximab, Abx-EGF~~), thalidomide, carmustine, prednisone, interferon alpha-2a, vincristine, pamidronate, erythropoietin, bisphosphonate and an epothilone.

18. (currently amended) The composition of any one of claims 7-16, wherein said ~~second~~ therapeutic agent is selected from the group consisting of carboplatin, oxaliplatin, cisplatin, paclitaxel, docetaxel, gemcitabine, and camptothecin.

19. (original) A method for inhibiting the growth of a cancer cell comprising contacting said cell with the composition of claim 1.

20. (withdrawn) A method for treating a patient having a cancer comprising administering to said patient an effective amount of the composition of claim 1.

21. (withdrawn) A method for treating a patient having a cancer comprising administering to said patient an effective amount of the pharmaceutical composition of claim 6.

22. (currently amended) The method of ~~treatment of~~ any one of claims 19-21, wherein said cancer is a cancer selected from the group consisting of breast cancer, colon cancer, ovarian carcinoma, osteosarcoma, cervical cancer, prostate cancer, lung cancer, synovial carcinoma, pancreatic cancer, melanoma, multiple myeloma, neuroblastoma, and rhabdomyosarcoma.

23. (cancelled).

24. (currently amended) A method for inhibiting the growth of a cancer cell comprising contacting a cancer said cell with:

(a) — a first therapeutic agent, wherein said first therapeutic agent is an antibody having the same amino acid sequence as the murine antibody EM164 ~~produced by mouse hybridoma EM164 (ATCC accession number PTA-4457), or an epitope-binding fragment thereof, wherein said antibody or said fragment specifically bind to insulin-like growth factor I receptor~~ the composition of claim 1, and

(b) — a second therapeutic agent.

25. (withdrawn - currently amended) A method for treating a patient having a cancer comprising administering to said patient having a cancer an effective amount of:

(a) — a first therapeutic agent, wherein said first therapeutic agent is an antibody having the same amino acid sequence as the murine antibody EM164 ~~produced by mouse hybridoma EM164 (ATCC accession number PTA-4457), or an epitope-binding fragment thereof, wherein said antibody or said fragment specifically bind to insulin-like growth factor I receptor~~ the composition of claim 1, and

(b) — a second therapeutic agent.

26. (currently amended) The method of claim 24, wherein said cell is contacted with said ~~first therapeutic agent~~ antibody or said fragment and said ~~second~~-therapeutic agent concurrently.

27. (currently amended) The method of claim 24, wherein said cell is contacted with said ~~first therapeutic agent~~ antibody or said fragment and said ~~second~~-therapeutic agent sequentially and in either order.

28. (withdrawn - currently amended) The method of claim 25, wherein said ~~first~~ ~~therapeutic agent antibody or said fragment~~ and said second therapeutic agent are administered concurrently.

29. (withdrawn - currently amended) The method of claim 25, wherein said ~~first~~ ~~therapeutic agent antibody or said fragment~~ and said second therapeutic agent are administered sequentially and in either order.

30. (currently amended) The method of claim 24 or 25, wherein said ~~second~~ therapeutic agent is selected from the group consisting of docetaxel, paclitaxel, doxorubicin, epirubicin, cyclophosphamide, trastuzumab (~~Herceptin~~), capecitabine, tamoxifen, toremifene, letrozole, anastrozole, fulvestrant, exemestane, goserelin, oxaliplatin, carboplatin, cisplatin, dexamethasone, antide, bevacizumab (~~Avastin~~), 5-fluorouracil, leucovorin, levamisole, irinotecan, etoposide, topotecan, gemcitabine, vinorelbine, estramustine, mitoxantrone, abarelix, zoledronate, streptozocin, rituximab (~~Rituxan~~), idarubicin, busulfan, chlorambucil, fludarabine, imatinib, cytarabine, ibritumomab (~~Zevalin~~), tositumomab (~~Bexxar~~), interferon alpha-2b, melphalam, bortezomib (~~Velcade~~), altretamine, asparaginase, gefitinib (~~Iressa~~), erlonitib (~~Tareeva~~), anti-EGF receptor antibody (~~Cetuximab, Abx-EGF~~), thalidomide, carmustine, prednisone, interferon alpha-2a, vincristine, pamidronate, erythropoietin, bisphosphonate and an epothilone.

31. (currently amended) The method of claim 24 or 25, wherein said ~~second~~ therapeutic agent is selected from the group consisting of carboplatin, oxaliplatin, cisplatin, paclitaxel, docetaxel, gemcitabine, and camptothecin.

32. (currently amended) The composition ~~method~~ of claim 1, wherein said ~~second~~ therapeutic agent is selected from the group consisting of bortezomib (~~Velcade~~), melphalan, thalidomide, doxorubicin, cyclophosphamide, interferon alpha-2b, interferon alpha-2a,

vincristine, pamidronate, carmustine, prednisone, zoledronate, erythropoietin, bisphosphonate and dexamethasone.

33. (currently amended) The composition of any one of claims 7-16, wherein said ~~second~~ therapeutic agent is selected from the group consisting of bortezomib (~~Veleade~~), melphalan, thalidomide, doxorubicin, cyclophosphamide, interferon alpha-2b, interferon alpha-2a, vincristine, pamidronate, carmustine, prednisone, zoledronate, erythropoietin, bisphosphonate and dexamethasone.

34. (currently amended) The method of claim 24 or 25, wherein said ~~second~~ therapeutic agent is selected from the group consisting of bortezomib (~~Veleade~~), melphalan, thalidomide, doxorubicin, cyclophosphamide, interferon alpha-2b, interferon alpha-2a, vincristine, pamidronate, carmustine, prednisone, zoledronate, erythropoietin, bisphosphonate and dexamethasone.

35. (new) The method according to claim 20, wherein said effective amount of the composition of claim 1 comprises about 1 mg/square meter to about 2000 mg/square meter of said antibody or fragment thereof, and about 10 mg/square meter to about 2000 mg/square meter of said therapeutic agent.

36. (new) The method according to claim 20, wherein said effective amount of the composition of claim 1 comprises about 10 mg/square meter to about 1000 mg/square meter of said antibody or fragment thereof, and about 50 mg/square meter to about 1000 mg/square meter of said therapeutic agent.

37. (new): The composition of claim 1, wherein said antibody or said fragment is selected from the group consisting of:

- (i) a resurfaced antibody or epitope binding fragment thereof;

- (ii) a human antibody or epitope binding fragment thereof;
- (iii) a humanized antibody or epitope binding fragment thereof; and
- (iv) an antibody produced by mouse hybridoma EM164 (ATCC accession number PTA 4457) or epitope binding fragment thereof.